

# Python 1 you're on **Fire!**

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Two and a half years ago, I took off in my A-10 on a Basic Fighter Maneuver (BFM) instructor upgrade sortie with my squadron commander. It was a memorable one, and it still feels like yesterday that this all happened to me.

Our plan was to accomplish some heavyweight Visual Flight Rule (VFR) patterns to fill some chased-pattern squares. After the second low approach, I was about 100 feet Above Ground Level (AGL) with my gear just cleaned up. As I raised my flaps my left engine shook violently, the compressor stalled, and the engine immediately caught on fire. My jet yawed viscosly to the left, my ITT pegged to 1200 degrees, and my RPM and fan speed decayed.

My first concern was to control the yaw, so I threw a bootful of rudder toward the good engine, while I established a righthand bank. I called "knock-it-off" while accomplishing the boldface for single-engine failure or fire on takeoff (too late to abort). Because I was still climbing (okay, just barely), I elected not to jettison my training Maverick missiles nor my triple-ejector racks. When I placed the fuel flows to override, I needed to place my right foot all the way down to the floor, even with 5-10 degrees of right bank to alleviate the rudder forces required. The Dash -1 states that, "... additional rudder input and bank will be required to control yaw when selecting Override." From my experience,

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I can tell you your foot better be all the way to the floor. If I had been smarter, I would have led my rudder inputs and used the rudder trim knob to relieve some of the pressure on my leg.

Meanwhile, Tower started screaming at me, "Python 1, you're on fire!" Then something fell out of my #1 engine onto a grassy area just past the runway and set the ground ablaze. Turns out it was hot stuff falling off my feeble #1 engine. As if that weren't enough, my squadron commander (often regarded as the Air Force's best A-10 pilot in history) chimed in with a much higher voice than I've ever heard from him before or since — "Rudder (my moniker), you've got a pretty good size plume coming out of #1."



Photo by S/A Greg Davis

I told Tower I was climbing straight ahead into a restricted area and prayed that the Army wouldn't shoot me down with their artillery barrages.

handle, I did not notice the light. The night vision modifications to our airplane have made this fire light imperceptible in the

thought I'd have time to review all the checklists on the way back. At any rate, I was intent on get-

## My advice is to handle your emergency to a safe conclusion



Photo by SSgt Aaron Allmon

The Dash -1 has a caution which says that fuel flows should remain in Override, "only until a safe altitude and climb rate are established (estimate 1 to 3 minutes)." This estimate in the Dash -1 does not correlate with long established single-engine procedures in the A-10 community. A-10 pilots are advised to achieve 2,000 feet AGL and 200 Knots Indicated Air Speed (KIAS) prior to shutting down an engine. I agree with this sage advice.

On the warm October day, it seemed to take forever to climb to 2000 feet, although it probably was more like 7 minutes, all at UD max (approximately 170 KIAS). I knew I was on fire because my wingman, the Tower, and my engine instruments all told me so. But unless I stared directly at the fire light in my T-

daylight, a design flaw soon to be corrected.

I finally made it to 2,000 feet AGL, shut the #1 engine down, pulled the fire handle, and then discharged one extinguisher bottle. Although the ITT dropped immediately, the fire light stayed on! After a few more seconds, though, my wingman called and said the fire was out (encouraging), then the fire light went out, although the fire test circuit kept checking bad. Several minutes later, the circuit finally checked good. By the way, my #1 engine had since seized on me and read zero RPM, but the extra drag from the seized engine was not noticeable.

Next, I checked all my stability augmentation switches, cranked my Auxiliary Power Unit (APU), placed my crossfeed on, and placed the APU generator on. I elected to set up a wide right hand pattern back to

final, mainly because it was my right engine, and I

ting the sick bird on terra firma as quick as practical.

My squadron commander suggested that I place the fuel flows back to norm to avoid any possible large yaw moment on final. History is replete with A-10s that have departed flight single-engine due to excessive yaw, so I followed his advice. In the event of a go around, I knew that I'd have to jettison my stores and select override again. Unfortunately, raising the gear was not an option (left hydraulics power gear retraction).

I sojourned around the base turn and extended the gear on final with the alternate gear handle. I can tell you one thing — you don't ever want to get slow on a single-engine approach (I didn't) because every time I had the power over 92 percent, the yaw rate increased terrifically. Granted, I had 9,500 pounds of JP-8 jet fuel (very heavy).

I flew my approach mostly at 170 KIAS until close to the overrun. Of course, I had speed brakes (right hydraulic system), so I had no problem stopping. On rollout, Tower was yelling at me again, telling me that there was



Photo by TSgt Michael Morford

another emergency A-10 coming in right behind me! Instead of stopping straight ahead as I originally had planned, I taxied my sick bird down to the end of the runway, differentially braking off the runway at a 45-degree angle to give one of my bros behind me the entire runway. The most conservative thing to do would have been to stop straight ahead as our local procedures dictate. In retrospect, nosing off the runway at a 45-degree angle was a mistake. My advice is to handle your emergency to a safe conclusion and let the chips fall where they may. As it turned out, the distressed jet behind me was only a precautionary landing due to a cabin pressure anomaly.

Back in the airplane, I started to relax — bad idea! The fire department bubbas met me right away and they started jumping up and down (not a good sign)! Then

Ground Control radioed me, "Python 1, the fire chief says get out, NOW!" Okay, okay, I'm coming. So I shut down my APU and #2 engine and jumped out. Yep, #1 engine was still smoking. After the fire department handled my A-10, they moved over to the grass fire that I had started — it was still raging out of control. Must have made their day, anyway!

The biggest lessons that I can pass on are these:

- Lead with the rudder. Be proactive with your foot because you may not get a second chance. Be prepared when you select override.
- Turn in the direction of your good engine. This will reduce your adverse

yaw and improve your single-engine handling characteristics. Use the rudder trim to help relieve the forces on your leg, but don't forget to zero out the trim on final.

- Be patient during the climb to 2,000 feet AGL. You've got your whole life to think about on the way up.
- Don't get slow on final. You can find yourself in a world of hurt if you have to select MAX while single-engine.

Step through your emergency to a logical conclusion. Don't deviate from your planned ending, unless the proverbial school bus shows up. ▶